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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/611,786

06/30/2003

Jeremy L. Rover

42P17063

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7590

03/04/2009

INTEL CORPORATION

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EXAMINER

NGUYEN, THUONG

ART UNIT

PAPER NUMBER

2455

MAIL DATE

DELIVERY MODE

03/04/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/611,786	Applicant(s) ROVER ET AL.	
	Examiner Thuong (Tina) T. Nguyen	Art Unit 2455	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/5/09.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/14/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to the amendment filed on 1/5/09. Claims 1, 11 & 16 were amended. Claims 1-22 are pending and represent system and method for the design and description of networks.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5-9, 11-13, 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Solomon, Patent No. 2003/0112808 A1 in view of Kulkarni, Patent No. 5,848,243, and further in view of Henry, Patent No. 2007/0101121 A1.

Solomon teaches the invention substantially as claimed including automatic configuration of IP tunnels (see abstract).

4. As to claim 11, Solomon teaches a network comprising:

a first network component to receive a request for a network configuration figure 4 & 7); and

a second network component in electrical communication with the first network component to provide the request for the network configuration, the second network component having a processor and logic executable thereon to

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programmatically categorize a subnet into a subnet grouping based, at least in part, on whether the subnet is an internal subnet or an external subnet, wherein the internal subnet is associated with a secure interface of a firewall and the external subnet is associated with a non-secure interface of a firewall (figure 5; page 6, paragraph 83-84; page 7, paragraph 86; Solomon discloses that the network of define the internal subnet which connected to the gateway and the external subnet is the remote subnet), wherein subnets within a subnet grouping can route to one another (figure 1 & 5; page 1, paragraph 5-6; page 7, paragraph 91; Solomon discloses that the network of classified the subnets into different groups);

provide a subnet subsection for the subnet within the categorized subnet grouping (figure 3; page 2, paragraph 9; page 7, paragraph 86; Solomon discloses that the network of listing the routing information for each group of subnets);

specify a network topology type in the provided subnet subsection (page 3, paragraph 23; page 8, paragraph 93; Solomon discloses that the network of mapping the topology to the specific subnets or hosts).

But Solomon failed to teach the claim limitation wherein the network topology type to indicate a network topology that is to be supported by the subnet; and provide a network configuration request, the network configuration request including the subnet subsection and the network topology type, wherein the network configuration request specifies a requested configuration for the network and further wherein one or more network components are to be configured responsive to the network configuration request.

However, Kulkarni teaches the limitation wherein the network topology type to indicate a network topology that is to be supported by the subnet (figure 5A & 6A; col 3, lines 50-65; col 4, lines 50—col 5, lines 10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Solomon in view of Kulkarni so that the system would be able to create and manage the network topology in the system. One would be motivated to do so to create tools for maintaining data relating to the physical and logical topology of a network.

However, Henry teaches secure IP access protocol framework and supporting network architecture (see abstract). Henry teaches the limitation wherein provide a network configuration request, the network configuration request including the subnet subsection and the network topology type, wherein the network configuration request specifies a requested configuration for the network and further wherein one or more network components are to be configured responsive to the network configuration request (page 1, paragraph 4, 6, 9, 11 & 20).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Solomon in view of Henry so that the system would be able to exchange and receiving request IP address and network configuration. One would be motivated to do so to offers good security protection and reduce major communication occur between IP hosts associated with the same access point.

5. As to claim 5, Solomon, Kulkarni and Henry teach the method as recited in claim 1, wherein providing a list of nodes, the list including at least one node (page 3,

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paragraph 21; page 8, paragraph 95; Solomon discloses that the method of listing of all the subnets and addresses corresponding to the table).

6. As to claim 6, Solomon, Kulkarni and Henry teach the method as recited in claim 5, wherein providing the list of nodes further comprises providing a starting position on the network for the listed node (figure 1), wherein the starting position indicates a local area network associated with the listed node (figure 4).

7. As to claim 7, Solomon, Kulkarni and Henry teach the method as recited in claim 5, wherein providing the list of nodes comprises providing the list of nodes within the specified network topology type subsection (figure 4; page 8, paragraph 94; Solomon discloses that the method of mapping the listing of the subnets with the topology).

8. As to claim 8, Solomon, Kulkarni and Henry teach the method as recited in claim 1, wherein categorizing the subnet into a subnet grouping comprises categorizing the subnet into an internal subnet grouping or an external subnet grouping (page 3, paragraph 23; Solomon discloses that the method of mapping table of all the external subnets within the network).

9. As to claim 9, Solomon, Kulkarni and Henry teach the method as recited in claim 8, comprises:

placing the subnet in the external subnet grouping, if the subnet is associated with an external interface of a Virtual Private Network (VPN) (page 2, paragraph 10; Solomon discloses that the method of using the VPN to control the access and encryption); and

placing the subnet in the internal subnet grouping, if subnet is associated with an internal interface of the VPN (page 2, paragraph 11; Solomon discloses that the method of configuring the VPN and the tunnels for the system).

10. As to claim 15, Solomon, Kulkarni and Henry teach the network as recited in claim 11, wherein the second network component is a control node (page 3, paragraph 25; Solomon discloses that the network of listing all the list of active nodes and remote nodes for controlling the packet transmission).

11. As to claim 18, Solomon, Kulkarni and Henry teach the article of manufacture as recited in claim 17, wherein the electronically accessible medium providing instructions, that, when executed by the apparatus, cause the apparatus to provide a list of nodes cause the apparatus to provide the list of nodes within the specified network topology type subsection (figure 4; page 8, paragraph 94; Solomon discloses that the article of mapping the listing of the subnets with the topology).

12. As to claim 19, Solomon, Kulkarni and Henry teach the article of manufacture as recited in claim 17, wherein the electronically accessible medium providing instructions that, when executed by the apparatus, cause the apparatus to provide the list of nodes, the list to include at least one node, cause the apparatus to provide a start position on the network for the listed node (figure 1), wherein the start point indicates a local area network associated with the listed node (figure 4).

13. As to claim 20, Solomon, Kulkarni and Henry teach the article of manufacture as recited in claim 17, wherein the electronically accessible medium providing instructions that, when executed by the apparatus, cause the apparatus to categorize the subnet

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into a subnet grouping, cause the apparatus to categorize the subnet into an internal subnet grouping or an external subnet grouping (page 3, paragraph 23; Solomon discloses that the article of mapping table of all the external subnets within the network).

14. Claims 1 & 16 disclose a method and article claims and do not teach or define any new limitations above claim 11 and therefore are rejected for similar reasons.

15. Claims 12 & 17 disclose a network and article claims and do not teach or define any new limitations above claim 5 and therefore are rejected for similar reasons.

16. Claim 13 disclose a network claim and do not teach or define any new limitations above claim 7 and therefore are rejected for similar reasons.

17. Claim 21 disclose an article claim and do not teach or define any new limitations above claim 9 and therefore are rejected for similar reasons.

18. Claims 2-4, 10, 14, & 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Solomon, Patent No. 2003/0112808 A1 in view of Kulkarni, Patent No. 5,848,243, and Henry, Patent No. 2007/0101121 A1, and further in view of Hoskins, Patent No. 2003/0106067 A1.

Solomon teaches the invention substantially as claimed including automatic configuration of IP tunnels (see abstract).

19. As to claim 2, Solomon, Kulkarni and Henry teach the method as recited in claim 1. But Solomon, Kulkarni and Henry failed to teach the claim limitation wherein

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specifying the network topology type section for the established subnet subsection comprises: specifying that the subnet is to be supported by a topology that is compliant with the IEEE 802.3 standard.

However, Hoskins teaches integrated Internet protocol (IP) gateway services in an RF cable network (see abstract). Hoskins teaches the limitation wherein specifying the network topology type section for the established subnet subsection comprises: specifying that the subnet is to be supported by a topology that is compliant with the IEEE 802.3 standard (page 13, paragraph 109).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Solomon, Kulkarni and Henry in view of Hoskins so that the system would be able to develop some wireless local area network. One would be motivated to do so to define several different physical layers including frequency hopping and baseline.

20. As to claim 3, Solomon, Kulkarni and Henry teach the method as recited in claim 1. But Solomon, Kulkarni and Henry failed to teach the claim limitation wherein specifying the network topology type section for the established subnet subsection comprises: specifying that the subnet is to be supported by a topology that is compliant with the IEEE 802.11a standard.

However, Hoskins teaches the limitation wherein specifying the network topology type section for the established subnet subsection comprises: specifying that the subnet is to be supported by a topology that is compliant with the IEEE 802.11a standard (page 12, paragraph 100).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Solomon, Kulkarni and Henry in view of Hoskins so that the system would be able to develop some wireless local area network. One would be motivated to do so to define several different physical layers including frequency hopping and baseline.

21. As to claim 4, Solomon, Kulkarni and Henry teach the method as recited in claim 1. But Solomon, Kulkarni and Henry failed to teach the claim limitation wherein specifying the network topology type section for the established subnet subsection comprises: specifying that the subnet is to be supported by a topology that is compliant with the IEEE 802.11b standard.

However, Hoskins teaches the limitation wherein specifying the network topology type section for the established subnet subsection comprises: specifying that the subnet is to be supported by a topology that is compliant with the IEEE 802.11b standard (page 12, paragraph 100).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Solomon, Kulkarni and Henry in view of Hoskins so that the system would be able to develop some wireless local area network. One would be motivated to do so to define several different physical layers including frequency hopping and baseline.

22. As to claim 10, Solomon, Kulkarni and Henry teach the method as recited in claim 8. But Solomon, Kulkarni and Henry failed to teach the claim limitation wherein placing the subnet in the external subnet grouping (page 2, paragraph 10), if the subnet

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is to be associated with a non-secure interface of a firewall; and placing the subnet in the internal subnet grouping (page 2, paragraph 10), if the subnet is to be associated with a non-secure interface of a firewall.

However, Hoskins teaches the limitation wherein placing the subnet in the external subnet grouping, if the subnet is to be associated with a non-secure interface of a firewall; and placing the subnet in the internal subnet grouping, if the subnet is to be associated with a non-secure interface of a firewall (page 25, paragraph 195).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Solomon, Kulkarni and Henry in view of Hoskins so that the system to ensure the non-secure interface for the firewall. One would be motivated to do so to increase the security for the network.

23. As to claim 14, Solomon, Kulkarni and Henry teach the network as recited in claim 11. But Solomon, Kulkarni and Henry failed to teach the claim limitation wherein the first network component is a Dynamic Host configuration Protocol (DHCP) server.

However, Hoskins teaches the limitation wherein the first network component is a Dynamic Host configuration Protocol (DHCP) server (page 25, paragraph 195).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Solomon, Kulkarni and Henry in view of Hoskins so that the system automatically assigns temporary IP address. One would be motivated to do so to eliminate having to manually assign static IP addresses.

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24. Claim 22 disclose an article claims and do not teach or define any new limitations above claim 10 and therefore are rejected for similar reasons.

Response to Arguments

Applicant's arguments with respect to claims 1, 11 & 16 have been considered but are moot in view of the new ground(s) of rejection.

Response to Arguments

Applicant's arguments filed 1/5/09 have been fully considered but they are not persuasive. In response to Applicant's argument, the Patent Office maintains the rejection. In the remarks, the applicant argues in substance that; A) Solomon do not disclose "specify a network topology type in the provided subnet subsection".

In response to A); Applicants argue that Solomon does not teach "specify a network topology type in the provided subnet subsection". In response to Applicant's argument, the Patent Office maintains the rejection because Solomon does teach "specify a network topology type in the provided subnet subsection" (page 3, paragraph 23; page 8, paragraph 93; Solomon discloses that the network of mapping the topology to the specific subnets or hosts). Therefore, Solomon meets the claim limitation.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuong (Tina) T. Nguyen whose telephone number is 571-272-3864, and the fax number is 571-273-3864. The examiner can normally be reached on 9:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Thuong (Tina) T Nguyen/
Examiner, Art Unit 2455

/saleh najjar/
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